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A U T O M O T I V E C A R E A N D S A F E T Y
F O R 4-H C L U B M E M B E R S ---

THE REPORT OF THE
EXPLORATORY COMMITTEE



U. S. Dept. of Agriculture ..
Federal Extension Service
Washington 25, D. C.

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MEMBERSHIP OF THE EXPLORATORY COMMITTEE

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RECOMMENDATIONS

A Summary Report to the
Extension Subcommittee on 4-H Club Work

The last session was on making a final statement on a summary to the Extension Subcommittee on 4-H Club Work. It was as follows:

The American Automotive Safety Foundation has deposited with the National 4-H Club Foundation a sum of \$3,500 to be spent in 1956 for the further development of the Automotive Care and Safety Program as determined by the Extension Subcommittee on 4-H Club Work. It is the recommendation that these funds be used for the expenses of one or more workshops for the preparation of literature and the implementation of the program in some pilot States or counties.

As your committee appointed to explore the possibility of the inclusion of an Automotive Program for 4-H Club work, we present the following:

1. The Automotive Program is especially adaptable to older 4-H members, both rural and urban. This involves thousands of boys and girls in each State. We suggest that serious considerations be given to the procurement of additional funds from legislative or other sources which could be used to augment our already overloaded staff, and so that an effective 4-H Automotive Program may be launched for the youth of the nation.
2. We endorse the establishment of a 4-H Automotive Program, and hereby submit for your consideration the reports of four work committees of this committee as suggested guide posts for future action.
 - a. Automotive Program Objectives
 - b. Program Content
 - c. Literature and Visual Aids
 - d. Leadership Training
3. In keeping with established 4-H Club program development procedure, we recommend this project be further developed, materials prepared, procedures outlined, and needs evaluated in one of the following methods.
 - a. Establishment of an Automotive Care and Safety Development Committee, or
 - b. Made as an additional assignment to the Tractor Development Committee to be considered as a distinct and separate project.
 - c. Create an Engineering Committee that would be responsible for the Automotive, Tractor, and any other similar engineering 4-H Club program.
4. We recognize the need for sponsors of this Automotive Program and suggest the National Committee on Boys and Girls Club Work be requested to designate a donor or donors for this important program.

FACTS AND SITUATION

The Situation

1. Many teenage boys are interested in things mechanical.
2. The number of farm trucks and automobiles is increasing rapidly.
3. Two million youth reach driving age and apply for driving permits annually.
4. Only 25% of this beginning group are receiving any type of organized training in safety operation of an automobile.
5. The motor vehicle is the principal killer of farm people. Over 40% of all deaths occur in motor vehicle accidents, most of which happen off the farm.
6. There were 36,000 deaths and 1,250,000 injuries in motor vehicle accidents in 1954.
7. Seventy-five percent of all motor vehicle accidents occur in rural areas.
8. Youth under 21 years of age were operating 12% of the automobiles involved in accidents in 1954.
9. Sons and daughters have a responsibility for the care and safe operation of the family car entrusted to their use.
10. An increasing number of young people have automobiles of their own.
11. An automotive project would be a complement to other safety and driving training programs.

Youth Are Concerned

This project would have a definite appeal to the average 16-17 year old club member who is seeking greater security and competence in the use and care of the family car. Sharing in the use of the family car is often an area of conflict between youth and their parents. Such a project would help eliminate the cause of some of these misunderstandings as youth assume greater responsibility for the care of the automobile and are more careful in its operation.

Harmonious understanding in the use of the family automobile strengthens parental relationships. In our present society the freedom of the occasional use of the automobile seems to be very important in meeting the needs and interests of middle and late teenage young people.

The legal limitations affecting the securing of an operator's permit make this a selective project for older members. This fact will enhance its appeal.

Ten years' experience with the 4-H Tractor Program has demonstrated the worthwhileness of this type of project and youth's interest in it. An Automotive

Care and Safety Project would be quite similar. It would have special appeal to rural non-farm youth, including girls.

Who Will Be Interested?

Youth

1. Older boys who are responsible for the care or use of the farm truck.
2. Older boys and girls who share in the use of the family car.
3. Older boys and girls who own an automobile.

Others

1. Parents
2. Farm organizations
3. Highway police
4. Automobile manufacturers and dealers
5. Automotive supply manufacturers and dealers
6. Oil companies
7. Other organizations promoting highway safety

State Reporting

New York

The engineering and 4-H staffs have been planning toward an automotive safety project. A few counties have had experiences with some of this work.

Maryland

One county has had limited experiences in this automotive area and there is a definite interest.

Ohio

In Ohio, the State Automobile Dealers' Association has been working with State 4-H staff. Russ Smith has been working out first year member and second year member guides. A State committee has been selected to work out details of the program and the project is to be started in 1956.

Michigan

Interest has been developing over the years. Automotive industry is vitally interested.

Nebraska

There is a need and an interest and good possibilities for a project for teenagers.

Some Factors We Have Learned in Ten Years with the Tractor Program --

Leon McNair and A. G. Kettunen

The tractor program has made phenomenal growth.

Program has received special interest for older 4-H members.

Loyal and devoted sponsors have given of themselves to develop the program.

Leader training has been given special emphasis and has cut a pattern.

Team work has been a core area--Extension, sponsors, other resources of leadership, and public support.

The tractor program had a rich period of growth in its involvement.

Just as in the case of the tractor program, in beginning an automotive project, the leadership and support of the Extension Subcommittee on 4-H Club Work and the Committee on Extension Organization and Policy is needed to begin the work and to make some uniformity by States. This has been a basic strength.

Leadership training and good sponsorship have been the supportive elements of the tractor program.

The mechanical appeal is strong for older 4-H members.

OUR WORK GROUPS' REPORTS

After a brief discussion on the second morning, the committee divided into four work groups. These work groups were the following:

- Automotive Project Objectives
- Program Content
- Literature and Visual Aids
- Leadership Training

These groups submitted their reports to the committee at 11:00. These reports are as follows:

Automotive Project Objectives Subcommittee Report

Objectives of the 4-H Club Automotive Care and Safety Program are designed to contribute to and help develop the general objectives of 4-H Club work.

1. To develop an understanding of an ability to practice desirable attitudes toward traffic laws and highway courtesy.
2. To develop an ability to perform elementary, preventive maintenance operations as cleaning and polishing a car, care of tires, checking tires, radiator, battery, etc.
3. To develop a desirable attitude and understanding in regard to safe driving of an automobile.
4. To develop an understanding of the mental and physical fitness requirements of safe automobile driving.

5. To develop a knowledge of the parts of the car and the principles of their maintenance and operation.
6. To develop an understanding of the principles of force, speed, center of gravity, etc., applicable to safe automobile operation.
7. To develop an understanding of the economics of efficient purchasing and operation of an automobile.
8. To develop an ability to keep and interpret a record of cost of car ownership and operation.
9. To develop an understanding of the vocational opportunities for competent persons in the automobile operation and service field.

Program Content Subcommittee Report

Safety should not be a separate heading but should be integrated with all material. The content and context of the program should be integrated into an everyday situation of automotive operation.

The 1st, 2nd, and 3rd years should stand independently - one not as a pre-requisite for another.

Topics to be included:

1. What makes an engine run and operator's manual.
2. Clean air.
3. Mixing fuel and air.
4. Ignition - distributor, coil, wire, plugs
5. Crankcase lubrication.
6. Cooling system.
7. Selecting proper lubrication and fuel.
8. Trouble shooting - (tune up)
9. Power transmission - clutch, transmission deferential
10. Chassis - steering, brakes, shocks, stabilizers, tires, wheels, etc.
11. Body care and repair - interior and exterior.
12. Electric system - battery, generator, wiring, lights, accessories.
13. Maintenance and cost records.

14. Traffic laws:

- a. Procedure in case of accidents
- b. Licenses and insurance requirements
- c. Rules of the road.

15. Handling your car on road

- a. Courtesy
- b. Special conditions - ice, snow, rain, etc.
- c. Desirable skills - parking
- d. Principles of physics in auto movements.

16. Safety features in your car:

- a. Belts, padding
- b. Windshield defrosters, washers, etc.

17. Vocational opportunities

18. Physical fitness for good operation

As a subcommittee, we recommend that work begin on developing these topics so that the first project can be used as a pilot project in interested States during the 1956 4-H Club year. It is important that this be done as the program is making initial growth in order that uniformity can be made.

Literature and Visual Aids Subcommittee Report

Material should be prepared in units as in the tractor program.

1. The first unit could be introductory literature - prior to learner's permit. Leaders will likely be drawn from Automotive Dealers and Service Station Operators.
2. Leaders Guide
Training heavy - 4-H background
3. Two units above introductory unit.

We propose the following basic outlines for the units:

First: Introductory Unit

Traffic laws and regulations (police officers, sheriff, State patrol)
Study of Operator's Manual
Records - (Family Vacation, trips)
Side entrances - on to highways
Community highway hazard hunt.
Safety Survey - newspaper clippings (scrap book)

Second: Basic Service Maintenance and Operation

Third: Efficient Operation (Technical Information)

There need to be activities to take the place of Drag Races, such as the "Economy Run."

Leadership Training Subcommittee Report

Well-trained and capable local volunteer leadership is paramount to the success of this program. We propose that this program be beamed to the local 4-H Club, under the guidance of volunteer leaders.

It is assumed that leaders will come from farms, villages and suburban areas, many of whom will not be familiar with present 4-H Club philosophy and methods. This should be recognized in the training procedure and in the literature content.

Content of Proposed Leader-Training Program:

1. Understanding the philosophy and objectives of 4-H Club work, including:
 - a. Club management - organization - group processes
 - b. Understanding young people.
2. Fortification in the subject matter of the automotive program.
3. Leadership and teaching techniques in:
 - a. The Club group program
 - b. The automotive program - project and activities

Developing, Planning, and Conducting the Leader-Training Program:

It is assumed that the success of this program depends upon its development by the county extension agent, and advisory committees.

Planning and Initiation Process:

1. State
 - a. Establish a planning group involving representatives of all concerned as: 4-H staff, agricultural engineering specialists, county extension workers, consultants, donors, members, and leaders.
 - b. A first step might well be to provide a survey technique (evaluation) for use by counties to discover interests and needs of young people in an automotive program. This will serve to motivate a concern for their own program.

Two surveys may be developed: one to potential members, one to agents and leaders.

- c. A primary function of the State committee would be to give guidance to the total program. One example would be to provide an agent training program to enable them to train leaders.
- 2. County
 - a. A first step would be to conduct a survey to members and leaders.
 - b. Bring the results of the surveys to the consideration of the county 4-H council or committee.
 - c. In developing the county program, consider the plan developed by the State committee.

Tools to Get the Job Done:

- 1. Leaders' Guide
- 2. Funds for Leader-Training

GENERAL DISCUSSION HIGHLIGHTS

Discussion

An informal survey of States represented at the conference indicated a rapid trend toward rural nonfarm and urban 4-H membership growth.

How would automotive program compete for time with other phases of 4-H Club work? The program would take time in the beginning and then leadership should be developed to take program.

Could program be planned for urban as well as farm boys and girls? Could project be designed to supplement present auto driving feature in schools?

Automotive work makes a good foundation for building parent-child relationships.

This area would have a relationship with the Jaycee program on Economy Run and other driving features. Driver Education?

A Search for Some Hows and Whys - General Discussion

This is a summary of the general discussion of the afternoon session. Some of the vital questions on an automotive project plan were considered.

Is there a need for a 4-H program on Automotive Care and Safety?

- 1. There is at present a concern, growing interest, and a great program potential for reaching more youth by better meeting their development

needs. Keen interest of boys and girls and the importance of the automobile in the lives of teenagers would give the project strong appeal.

2. This program area would have particular appeal for older 4-H members because of the nature and program content.
3. This project area has particular adaptation for urban and suburban club work.
4. Such a project fills a definite interest for 4-H members and their families. Family concern and understanding about safety and proper operation of family automobile would develop better family relationships.
5. Safety in automotive operation is a major factor to consider.
6. The project would be a means for development of citizenship and respect to public.

What would be some of the factors in the program objectives?

1. Citizenship development - character development.
2. Safety of 4-H members and others.
3. Develop better drivers and efficient operators.
4. Pride in a nice car - an efficient and safe car.
5. To satisfy mechanic appeal and the curiosity to know the "why of a car."
6. Understanding of the importance and care of efficiency of auto operation.
7. To assist boys and girls in the importance of the automobile in our way of life.
8. To teach highway and driving regulations.

Objectives might be classified in three broad categories:

1. Character and citizenship.
2. Knowledge in efficiency and operation of a car.
3. Safety - respect, understanding of driving regulations.

How to teach safety?

1. By demonstration.
2. By examples.

3. By actual doing.
4. By an automotive project as a method to include safety.

What age groups are we to appeal?

Ages - 15 plus.

Driving permit is given in most States at age 16. There is a need to have one year preparatory work before driving.

Sex - Boys and girls may enroll.

Residence - Farm, Nonfarm, and Urban

Is this a project or activity?

There was a definite consensus of opinion that this automotive area is a project.

As a project, what is needed?

Records
Leader's Guide
Project Manual
Leader Training
Resource Materials
Awards
Events and Activities
Sponsors

What is the content and scope of the project?

1. Techniques of automobile driving.
2. The importance of adequate operator training.
3. Traffic laws.
4. Highway courtesy.
5. What to do in case of an accident.
6. A code of responsible conduct and understanding.
7. Kind and amount of automobile insurance.
8. License application.
9. Keeping auto cost records.
10. Using the operator's manual.
11. Selection of proper lubricants and fuel.

12. Care of the cooling system.
13. Servicing the air cleaner.
14. Care of tires.
15. Understanding what constitutes proper functioning of:
 - a. Automatic transmission
 - b. Hydraulic brakes
 - c. Safe and efficient steering
 - d. Legal and proper lights
16. What points to consider in selecting a used car.
17. Ignition
18. Tune-up
19. Lubrication
20. Body care and repair
21. Principles of physics in automotive movements.

What are some activities associated with project?

1. Conduct a community-wide highway hazard hunt.
2. Conduct a safety check for farm vehicles.
3. Develop an automobile and truck inspection blank; include those items which should be regularly inspected to maintain safe and efficient operation.
4. Clear farm road entrances in your neighborhood - safe farm lanes.
5. Promote dad-to-daughter and man-to-man good driving agreements in your Club.
6. Discuss highway hazards with your local officials.
7. Construct educational booths and exhibits on some phase of highway safety for your local, county and State shows and fairs.
8. Conduct a braking distance demonstration.
9. Have your Club conduct an automobile Economy Run.
10. Set up displays in cooperating local store windows.
11. Conduct debates on such resolutions as: We should have periodical motor vehicle inspection; periodical reexaminations of drivers for operator's licenses.

12. Use a highway safety theme for a parade float.
13. Develop a highway safety program for your community and your county, and indicate the agencies which should cooperate and what each should do.
14. Encourage club members to speak before various organizations, schools and churches in behalf of highway safety.
15. Present a program on some phase of highway safety to the P.T.A. and get their support in promoting it.
16. Sponsor a safe drivers' club in your school and community.
17. Encourage club members to enroll in driving training classes whenever possible.
18. Make spot mats of accident locations to show trouble areas.
19. Prepare and present demonstrations on such subjects as: walking on a highway; driving at night; parking in a tight place; riding the school bus; proper loading and hauling of livestock, hay, etc.
20. Trouble shooting activity.

Who will produce materials? How to project program?

In preparing materials, there is much strength in beginning this program with materials being prepared nationally projected through channels -- Pilot work by States, Extension engineers, 4-H leaders, Federal office, Subcommittee, O & P Committee, and National Committee on Boys and Girls Club Work.

Who should be the sponsor?

The donors in the Tractor Program indicated by a resolution their interest in the automotive area. Copies of this resolution, which was reviewed by the group, are included for information of the membership of the Extension Subcommittee on 4-H Club Work.

A RESOLUTION

BEING fully informed of the high and worthwhile aims and purposes of the 4-H Clubs and in particular the 4-H Tractor Program, and having a sincere desire to further such high and worthwhile aims and purposes, the 4-H Tractor Program Sponsors being duly assembled for such consideration do submit as follows:

THAT,

WHEREAS, the said Sponsors have supported to a large extent financially, and otherwise, most wholeheartedly, a 4-H Program designed to teach the Nation's 4-H youth the principles of safe operation and maintenance of farm tractors, such Program being now in its eleventh year of successful operation, and that,

WHEREAS, the said Sponsors, in frequent consultation, have seriously deliberated upon various and sundry means of improving the said Program, such means, of recent adoption, having been the complete revision and improvement of the Program literature and the addition, at the request of the Agricultural Extension Service, of instructions on the safe operation and care of farm machinery, and that,

WHEREAS, the said Sponsors have cooperated wholeheartedly with the Agricultural Extension Services throughout the United States and with the National Committee on Boys and Girls Club Work in many instances to the extent of making their company field engineering services readily available for work on the Program, and that,

WHEREAS, such cooperative endeavors have been managed with the mutual agreement of all parties, in the National 4-H Tractor Program Committee, and that,

WHEREAS, consideration has been given from time to time and from the inception of the 4-H Tractor Program to the inclusion in this Program of information and instructions on the safe operation of other automotive vehicles, and that,

WHEREAS, the said Sponsors have been asked to furnish instructions and technical assistance for automotive vehicles other than tractors, and that,

WHEREAS, at least six States are known to have expressed an interest in such a program on automotive vehicles other than tractors --

THEN BE IT RESOLVED THAT:

- A. THE National 4-H Tractor Program Committee give immediate consideration to the inclusion of the necessary information on the safe operation and care of automotive vehicles, other than tractors, in the 4-H Tractor Program, and that,
- B. THE said Committee give consideration to revising the name and content of the present 4-H Tractor Program literature to be consistent, and that,
- C. THE said Committee be empowered to act on behalf of the Tractor Sponsors as the sole authority to arbitrate and decide on questions pertinent to this resolution subject only to final decisions of the Extension Subcommittee on 4-H Club Work for the United States.

(Unanimously Adopted, November 29, 1955. 4-H Tractor Program Sponsors Breakfast Meeting, 1955 National 4-H Club Congress.)

Personnel and Sponsors

Could we look for an educational grant from a Foundation for projecting this program in every State for five years by employing one agricultural engineer and one State Club staff member to project this project?

